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IMAGERY
ANALYSIS
DIVISION

PIR

PHOTOGRAPHIC INTELLIGENCE REPORT

REGIONAL PETROLEUM STORAGE INSTALLATIONS
IN COMMUNIST CHINA

Declass Review by NIMA/DOD

CIA/PIR 65054

DATE Nov. 1965

GROUP 1
Excluded from automatic
downgrading and declassification

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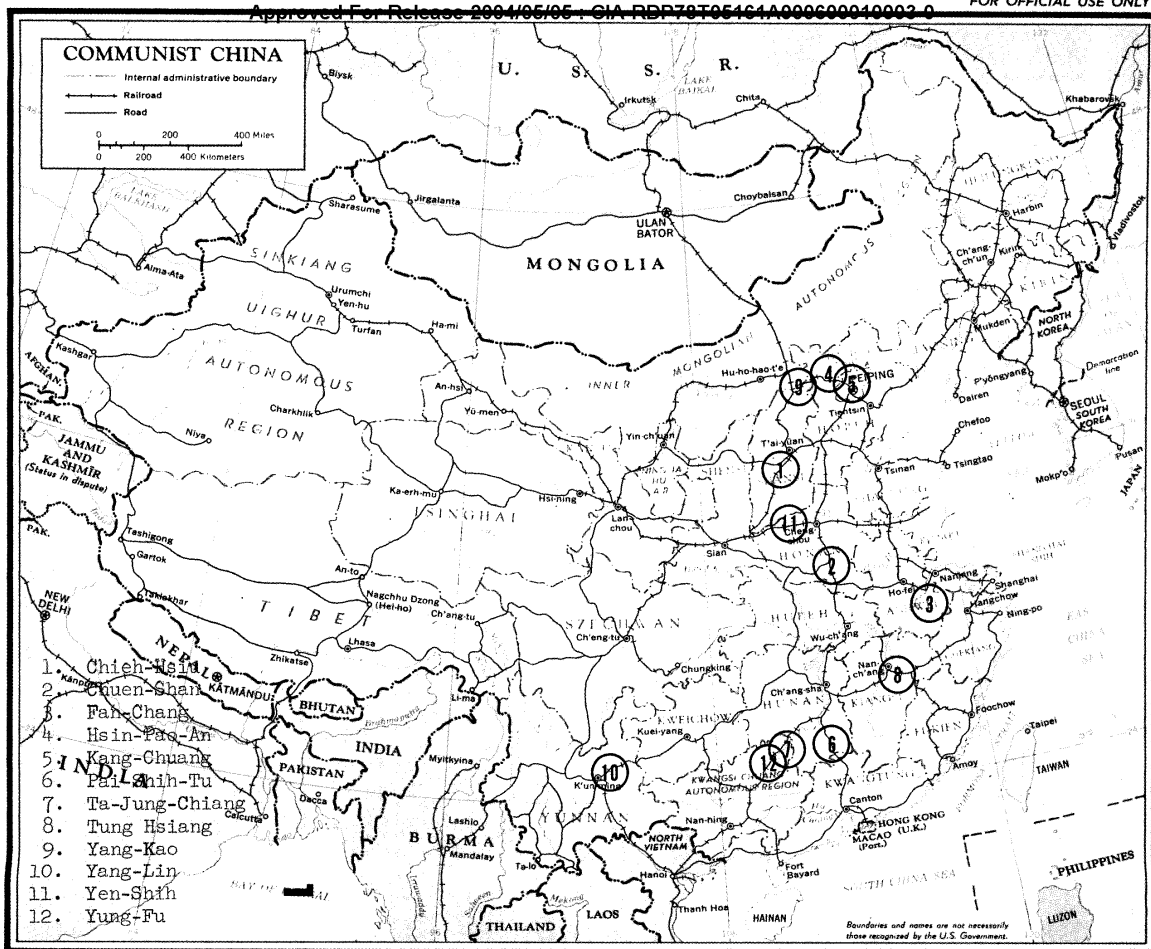
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December 1965

CIA
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ERRATUM FOR CIA/PIR-65054

The place name Chuen-shan should be corrected throughout the report to read Chueh-shan.



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CIA IMAGERY ANALYSIS DIVISION

REGIONAL PETROLEUM STORAGE INSTALLATIONS
IN COMMUNIST CHINA

Twelve unusual rail-served petroleum storage installations, including three that are currently under construction, have been located in Communist China (Figure 1). These installations have similar components and are all strategically located in relatively isolated areas at the end of 2-3 mile long rail spurs which were constructed specifically for and serve only the installation.

The installations appear to be regional collection and distribution centers for petroleum products. Some of these sites are less than ten miles from large military barracks and training areas. A typical completed installation (Figure 2) contains 20 dome-covered, earth-mounded, semi-buried, tank-like structures, approximately 65 feet in diameter and 40 feet deep; a three-track wide, revetted, rail transloading facility; at least one large earth-covered bunker, approximately 200 feet by 100 feet; two or three warehouse-type buildings, each approximately 200 feet by 100 feet; and a support area of 35-50 buildings, including barracks. The entire area is secured with single or double fencing.

These regional petroleum storage installations have several features that are not typical of known POL storage areas elsewhere in China.

- (a) A hemispherical dome covers each tank-like structure. The sides of the tank are completely covered with earth approximately ten feet thick at the top, sloping to 20-25 feet thick at the bottom, so that each tank-like structure resembles a giant igloo.
- (b) The structures are spaced in an apparently random pattern from 100 to 500 feet apart, possibly to take advantage of ravine spurs and natural terrain features that provide additional security and protection.
- (c) Each structure appears to have seven ventilators; one on the top in the center of the dome, and six spaced around the edges.
- (d) The structures are usually built along the sides of ravines at elevations considerably higher than the railhead facility.
- (e) Locating these installations in some of these isolated areas required the construction of tunnels and bridges. The construction time of approximately 3-4 years and the engineering and construction costs appear to be high for conventional POL storage areas.

The following nine installations appeared to be operational. However, new buildings and additional construction activity has been observed at most of these installations from 1962 to 1965:

-1-

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Chieh-Hsui (36-59N 111-55E), 60 nautical miles southwest of Tai-Yuan
 Chuen-Shan (32-47N 114-01E), 135 nautical miles north of Wu-Han
 Hsin-Pao-An (40-27N 115-21E), 50 nautical miles northwest of Pei-Ping
 Kang-Chuang (40-19N 115-54E), 25 nautical miles northwest of Pei-Ping
 Tung-Hsiang (28-10N 116-38E), 50 nautical miles southeast of Nan-Chang
 Yang-Kao (40-20N 113-41E), 25 nautical miles northeast of Ta-Tung
 Yen-Shih (34-44N 112-55E), 25 nautical miles east of Lo-Yang
 Yung-Fu (24-49N 110-00E), 45 nautical miles northeast of Lui-Chow
 Yang-Lin (25-14N 103-06E), 25 nautical miles northeast of Kun-Ming

Construction began on the following three installations during 1962 and 1963:

Fan-Chang (31-04N 118-07E), 25 nautical miles southwest of Wu-Hu
 Pai-Shih-Tu (25-25N 113-04E), 50 nautical miles northwest of Chu-Chiang
 Ta-Jung-Chiang (25-35N 110-32E), 20 nautical miles northeast of Kwei-Lin

Photographs and map locations of the known twelve installations, arranged in alphabetical order, are shown on the following pages. A detailed search of available photography could possibly reveal the locations of several more.

A few of these installations are identified and located for the first time in this report, but most of them have been previously reported as possible underground POL storage, explosive storage, or mining activity. It seems apparent that they are all similar, represent a major current construction effort, and may have significant military importance.

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MAPS AND CHARTS

Chieh-Hsui

ACIC. US Air Target Chart, Series 200, Sheet 0382-18AL, Scale 1:200, 000, 2nd edition, April 1961 (SECRET).

Chuen-Shan

ACIC. US Air Target Chart, Series 200, Sheet 0385-24HL, Scale 1:200, 000, 2nd edition, June 1963 (SECRET).

Fan-Chang

ACIC. US Air Target Chart, Series 200, Sheet 0493-9A, Scale 1:200, 000, 1st edition, March 1959 (SECRET).

Pai-Shih-Tu

ACIC. US Air Target Chart, Series 200, Sheet 0498-16HL, Scale 1:200, 000, 2nd edition, March 1964 (SECRET).

Hsin-Pao-An

ACIC. US Air Target Chart, Series 200, Sheet 0289-21AL, Scale 1:200, 000, 4th edition, November 1962 (SECRET).

Kang-Chuang

ACIC. US Air Target Chart, Series 200, Sheet 0289-21AL, Scale 1:200, 000, 4th edition, November 1965 (SECRET)

Ta-Jung-Chiang

ACIC. US Air Target Chart, Series 200, Sheet 0497-18A, Scale 1:200, 000, 1st edition, February 1959 (SECRET).

Tung-Hsiang

ACIC. US Air Target Chart, Series 200, Sheet 0493-23AL, Scale 1:200, 000, 2nd edition, November 1960 (SECRET).

Yang-Kao

ACIC. US Air Target Chart, Series 200, Sheet 0288-25AL, Scale 1:200, 000, 1st edition, March 1960 (SECRET).

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Yang-Lin

ACIC. US Air Target Chart, Series 200, Sheet 0496-17A, Scale 1:200, 000, 1st edition, September 1959 (SECRET).

Yen-Shih

ACIC. US Air Target Chart, Series 200, Sheet 0385-8AL, Scale 1:200, 000, 1st edition, April 1960 (SECRET).

Yung-Fu

ACIC. US Air Target Chart, Series 200, Sheet 0497-18A, Scale 1:200, 000, 1st edition, February 1959 (SECRET).

REQUIREMENT

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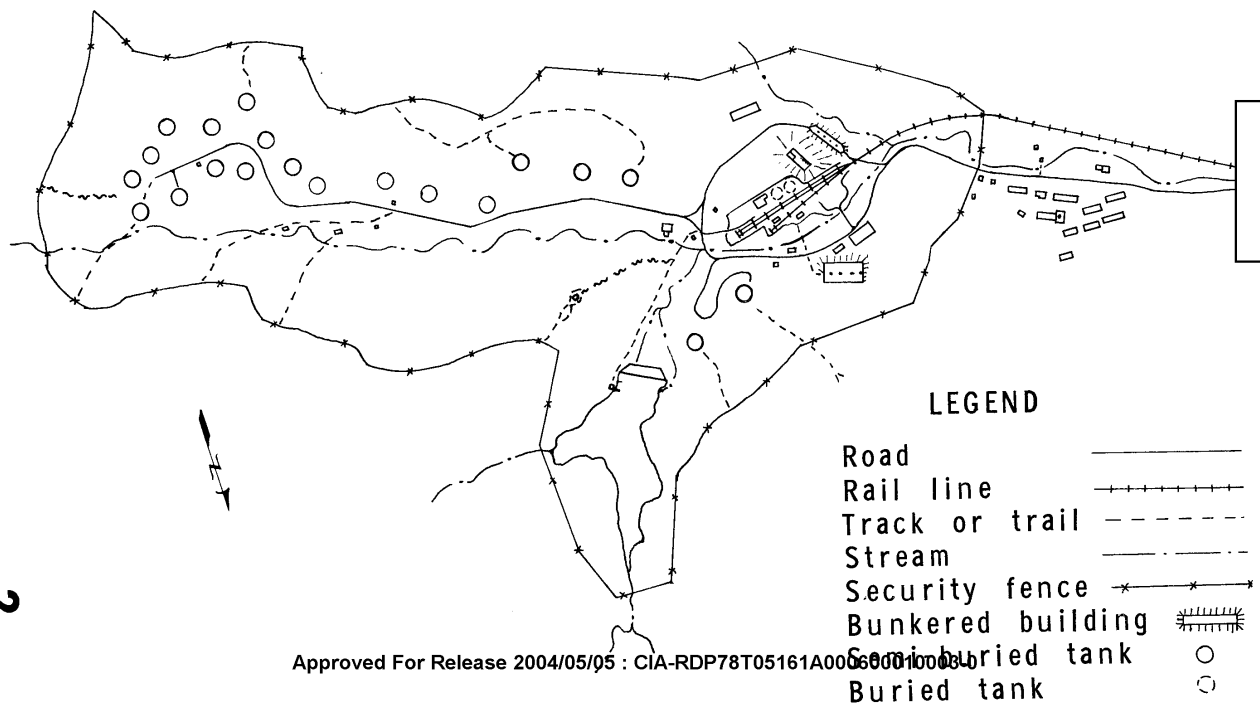
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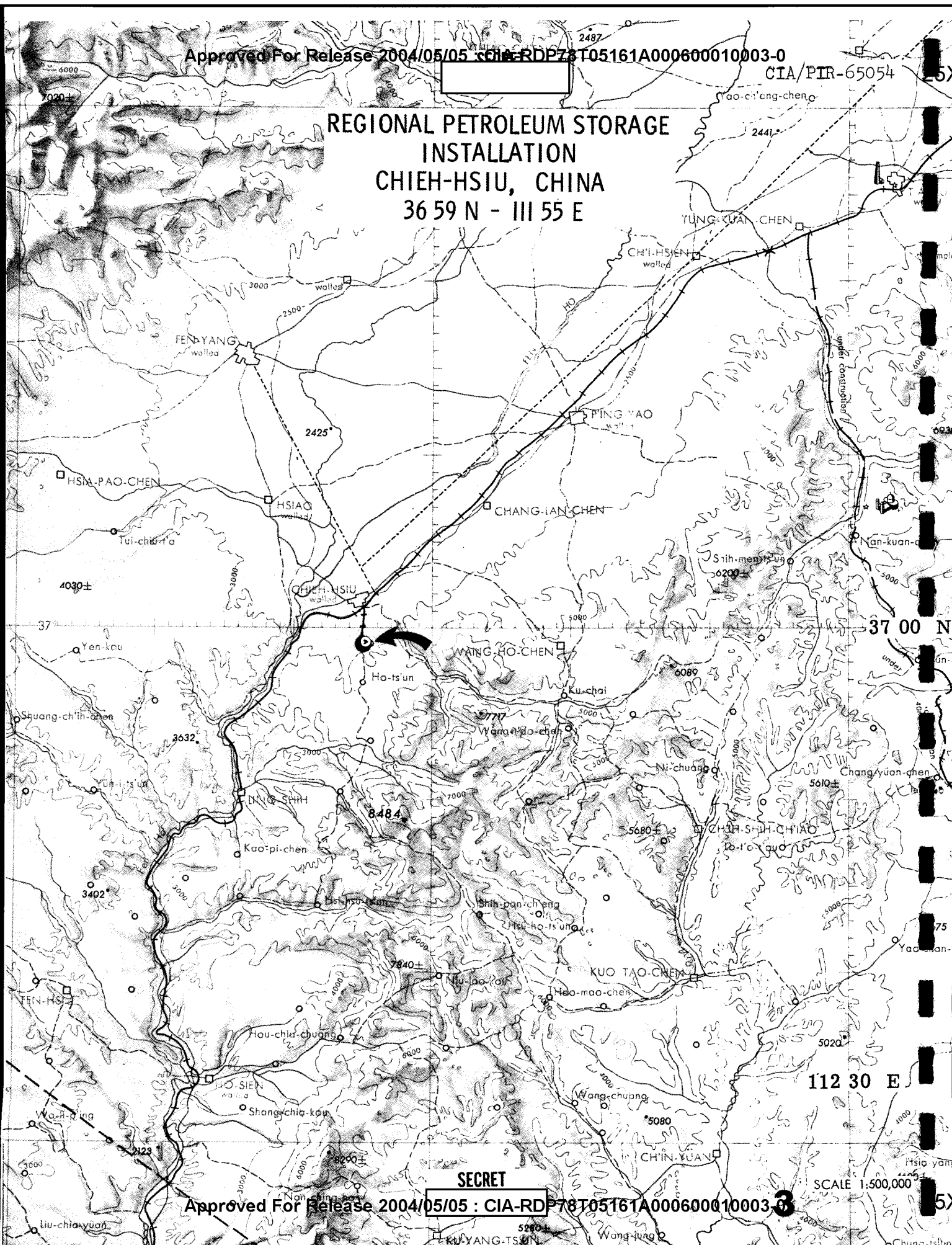
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REGIONAL PETROLEUM STORAGE
INSTALLATION
TUNG-HSIANG, CHINA
28 10 N - 116 38 E



REGIONAL PETROLEUM STORAGE
INSTALLATION
CHIEH-HSIU, CHINA
36 59 N - 111 55 E



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REGIONAL PETROLEUM STORAGE
INSTALLATION
CHIEH-HSIU, CHINA
36 59 N 111 55 E

RAILHEAD

SUPPORT AREA

20 SEMI-BURIED TANKS

CIA/PLR-650

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2152

32 47 N 114 01 E

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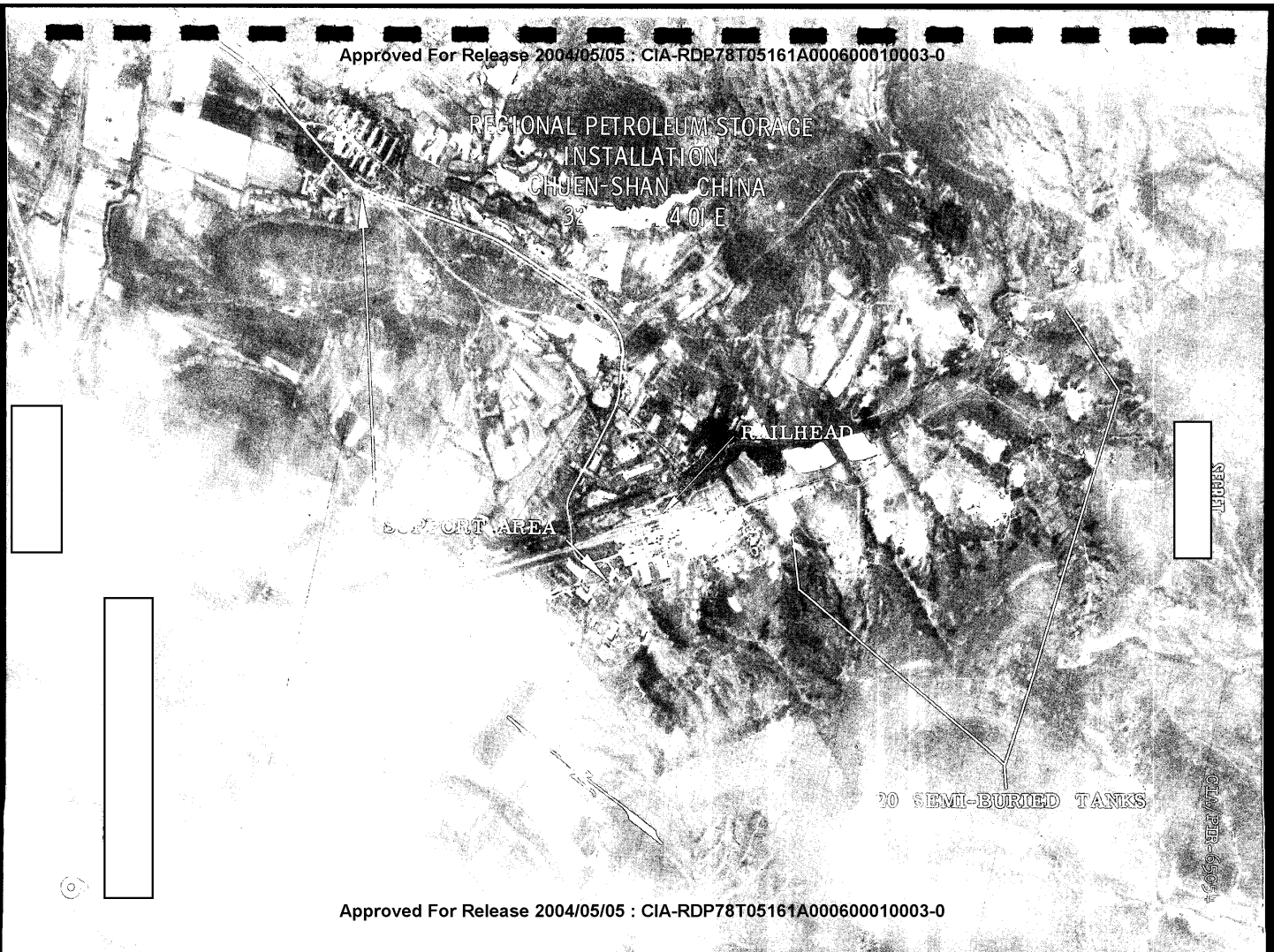
250-1637

A map of the Kuo-chang area. The Kuo-chang River is shown flowing from the top left towards the bottom right. Several locations are marked with dots and labeled: Ming-chiang (top left), Chang-tien (top right), Hui-ho-chien (center), Hui (bottom right), and San-kuo-miao (bottom left). The map also shows some roads and terrain features.

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REGIONAL PETROLEUM STORAGE
INSTALLATION
CHUEN-SHAN, CHINA
32° 40' E

RAILHEAD

SUPPORT AREA

20 SEMI-BURIED TANKS

SECRET

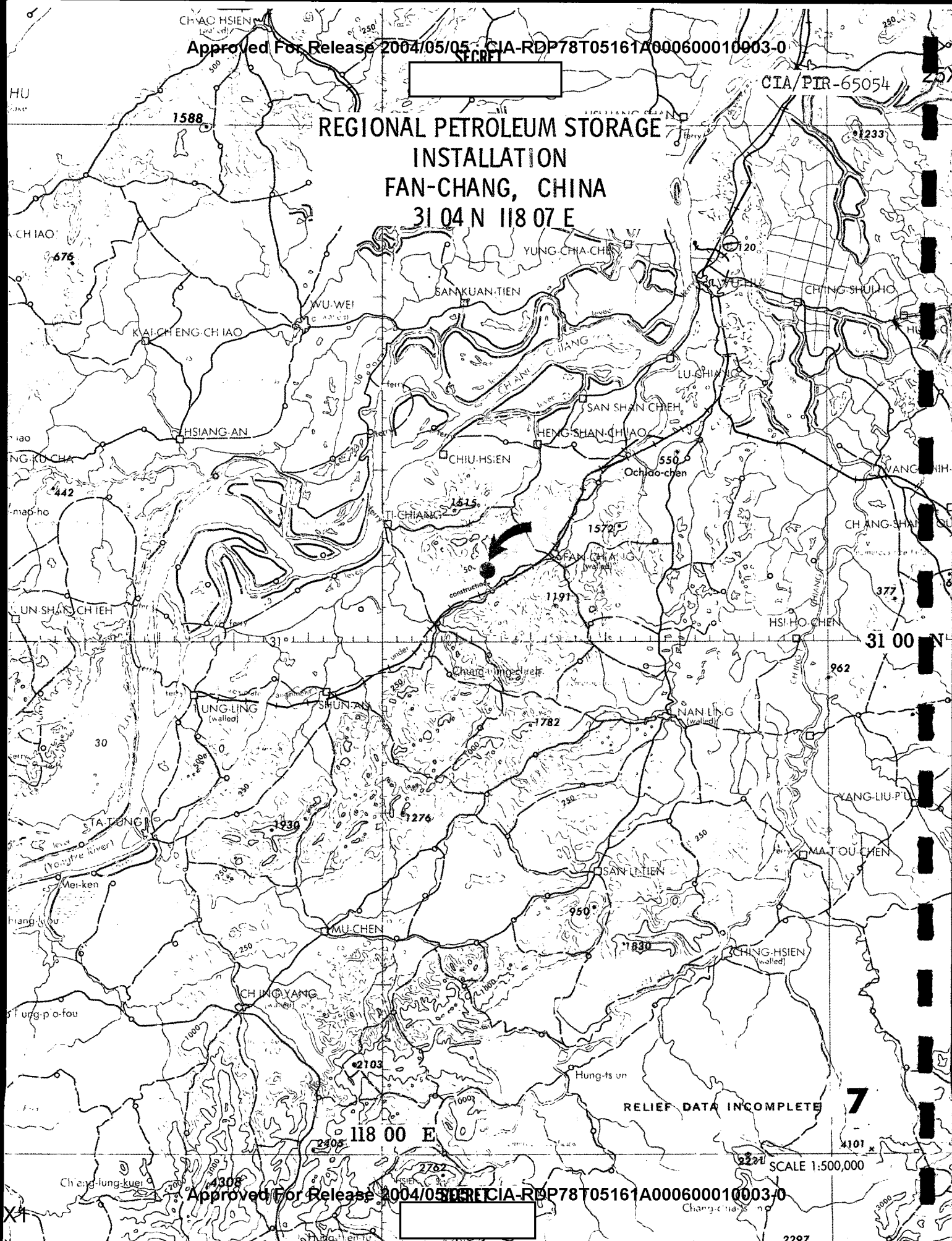
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REGIONAL PETROLEUM STORAGE
INSTALLATION
FAN-CHANG, CHINA
31 04 N 118 07 E



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REGIONAL PETROLEUM STORAGE
INSTALLATION
FAN CHANG, CHINA
31 04 N 113 07 E

TANK AREA U/C

RAILHEAD

SUPPORT AREA

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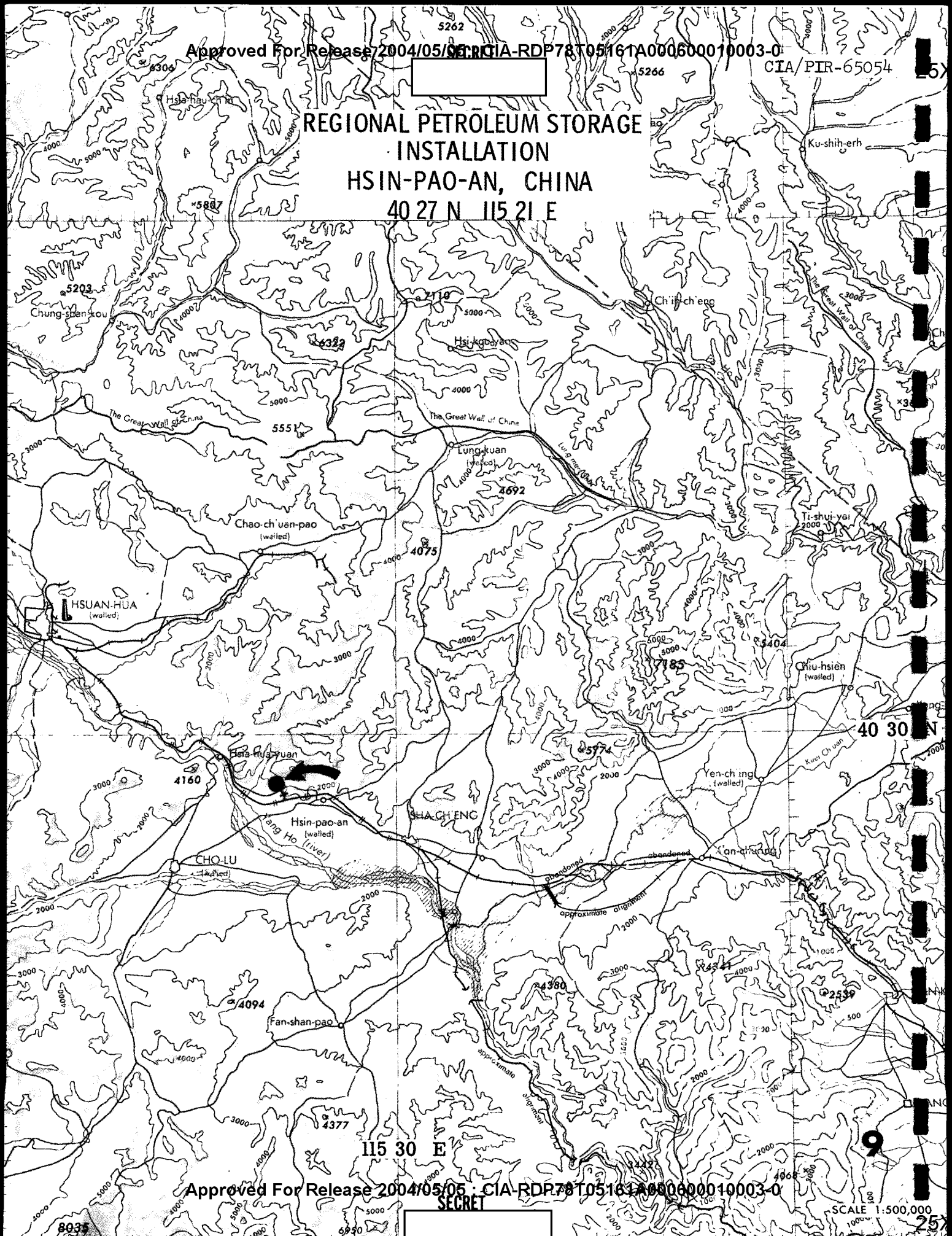
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REGIONAL PETROLEUM STORAGE
INSTALLATION

HSIN-PAO-AN, CHINA

40 27 N 115 21 E



REGIONAL PETROLEUM STORAGE

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INSTALLATION

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HSIN-PAO-AN, CHINA

40 27 N 115 21 E

SUPPORT AREA

RAILHEAD

20 SEMI-BURIED TANKS

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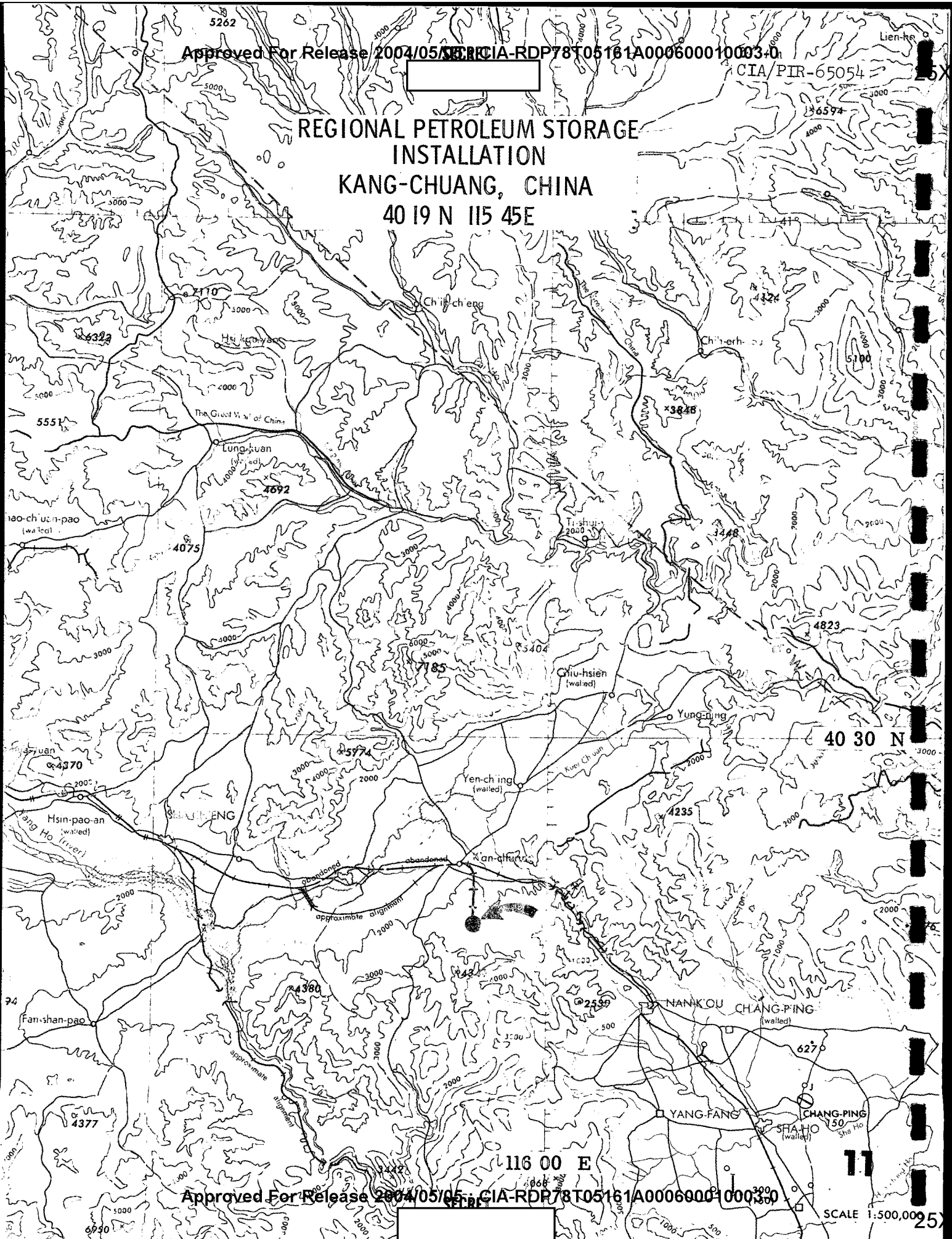
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REGIONAL PETROLEUM STORAGE
INSTALLATION

KANG-CHUANG, CHINA

40 19 N 115 45 E



REGIONAL PETROLEUM STORAGE

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KANG-CHUANG, CHINA

40 19 N 115 54 E

20. SEMI-BURIED TANKS

SUPPORT AREA

RAILHEAD

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REGIONAL

STATISTICAL

SHIH IN CHIA

25 N 113 02 E

RAILROAD

RAILROAD

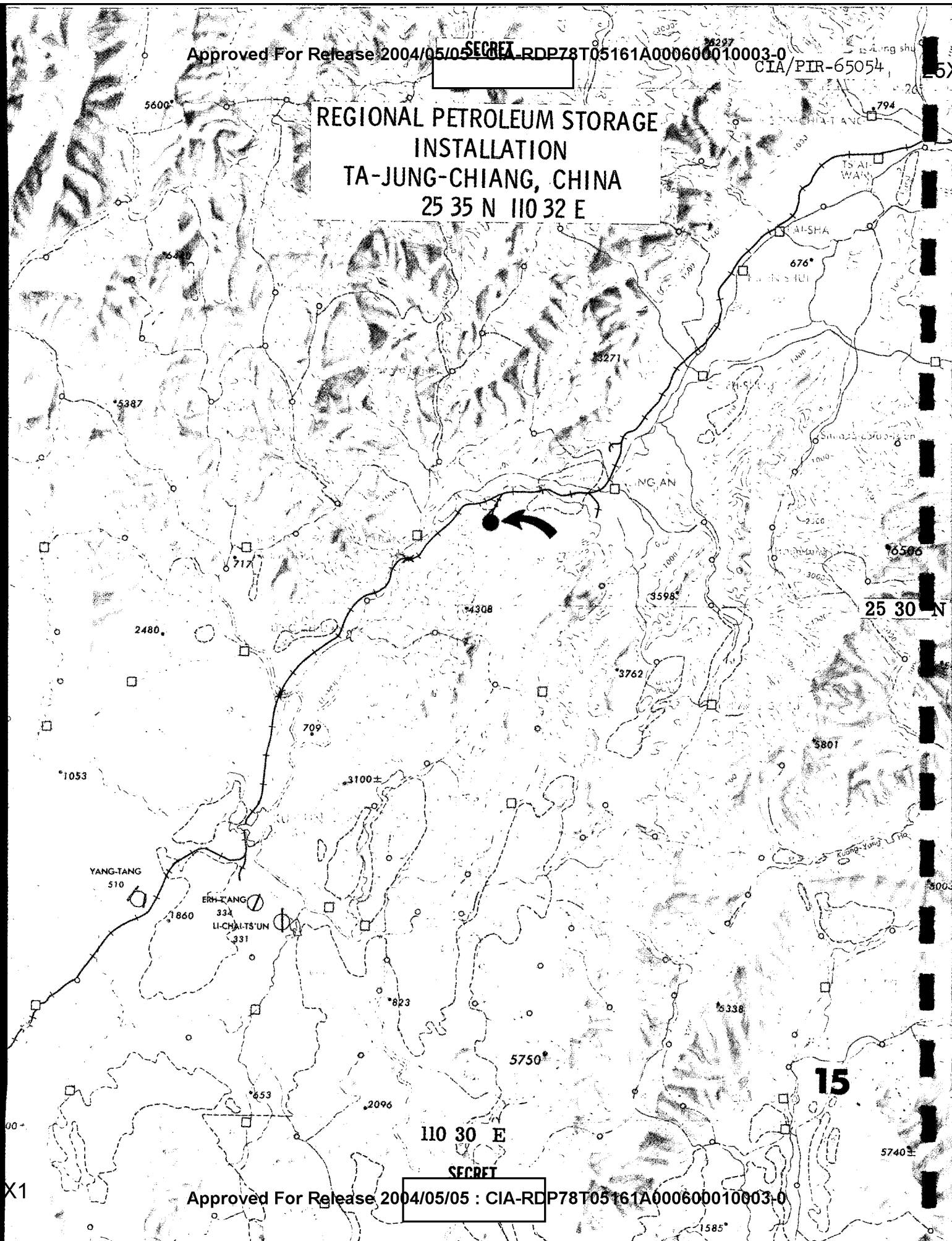
TANK AREA

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REGIONAL PETROLEUM STORAGE
INSTALLATION
TA-JUNG-CHIANG, CHINA
25 35 N 110 32 E



110 30 E

SECRET

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REGIONAL PETROLEUM STORAGE
INSTALLATION
TA-JUNG-CHIANG, CHINA
25 35 N 110 32 E

TANK AREA U/C

SUPPORT AREA

RAILHEAD

RAILHEAD

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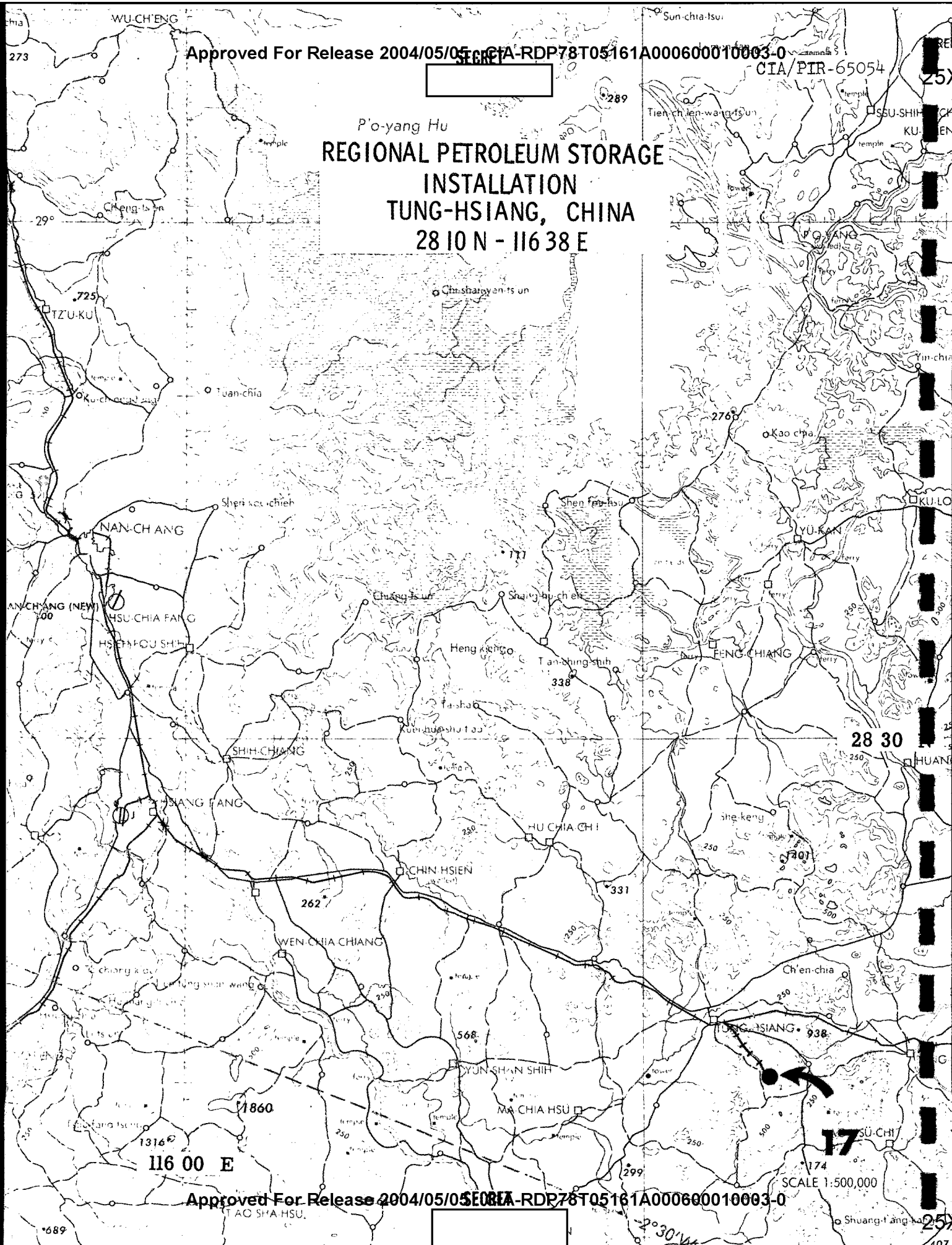
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REGIONAL PETROLEUM STORAGE
INSTALLATION
TUNG-HSIANG, CHINA
28 10 N - 116 38 E

RAILHEAD

SUPPORT AREA

20 SEMI-BURIED TANKS

SECRET

SECRET

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REGIONAL PETROLEUM STORAGE
INSTALLATION
YANG-KAO, CHINA
40 20 N 113 41 E

RAILHEAD SUPPORT AREA SEMI-BURIED TANKS

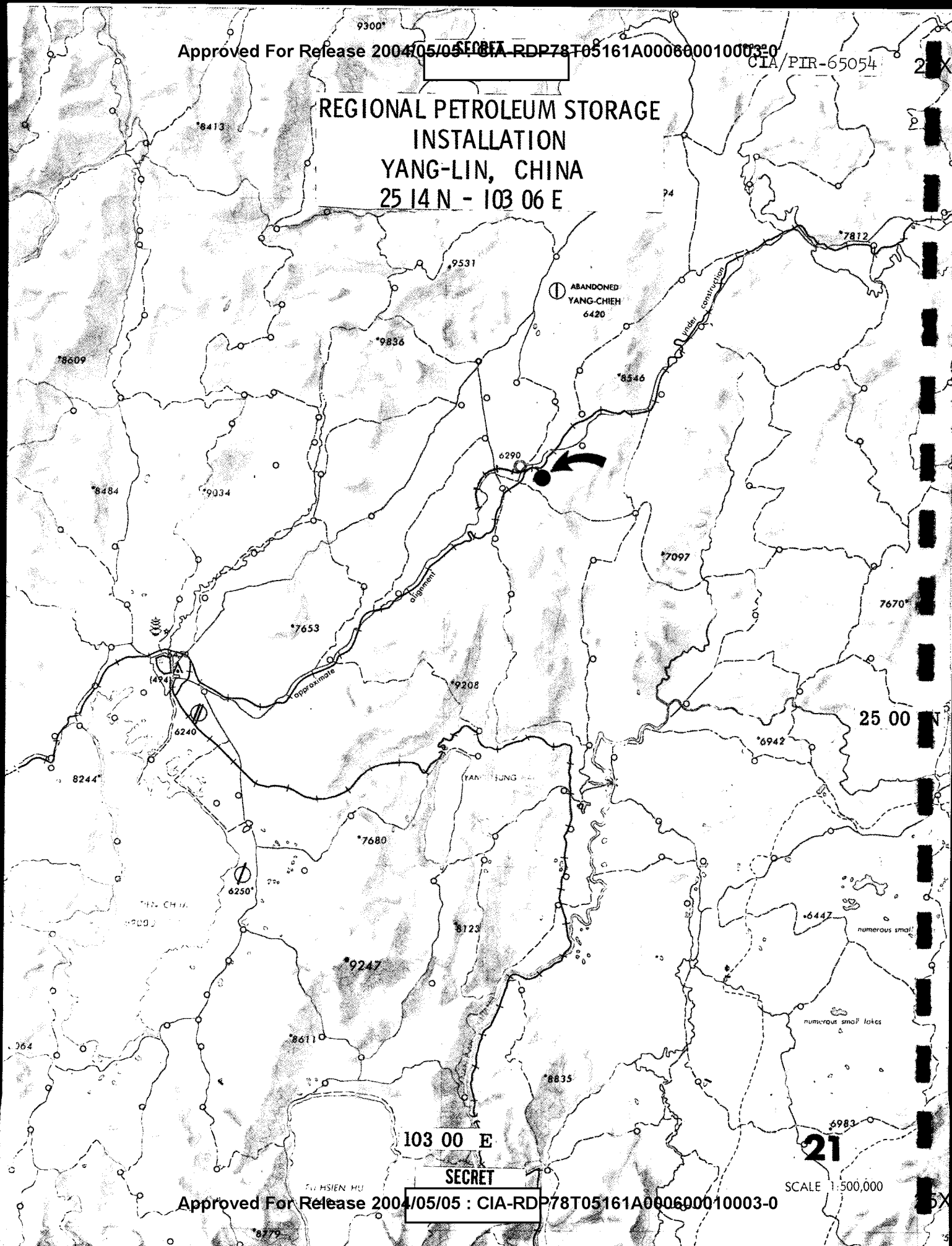
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REGIONAL PETROLEUM STORAGE
INSTALLATION
YANG-LIN, CHINA
25 14 N - 103 06 E



103 00 E

SECRET

21

SCALE 1:500,000

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REGIONAL PETROLEUM STORAGE
INSTALLATION
YANG-LIN, CHINA
15 14 N - 103 06 E

SUPPORT AREA

RAILHEAD

SEMI-BURIED TANKS

SECRET

SECRET

22

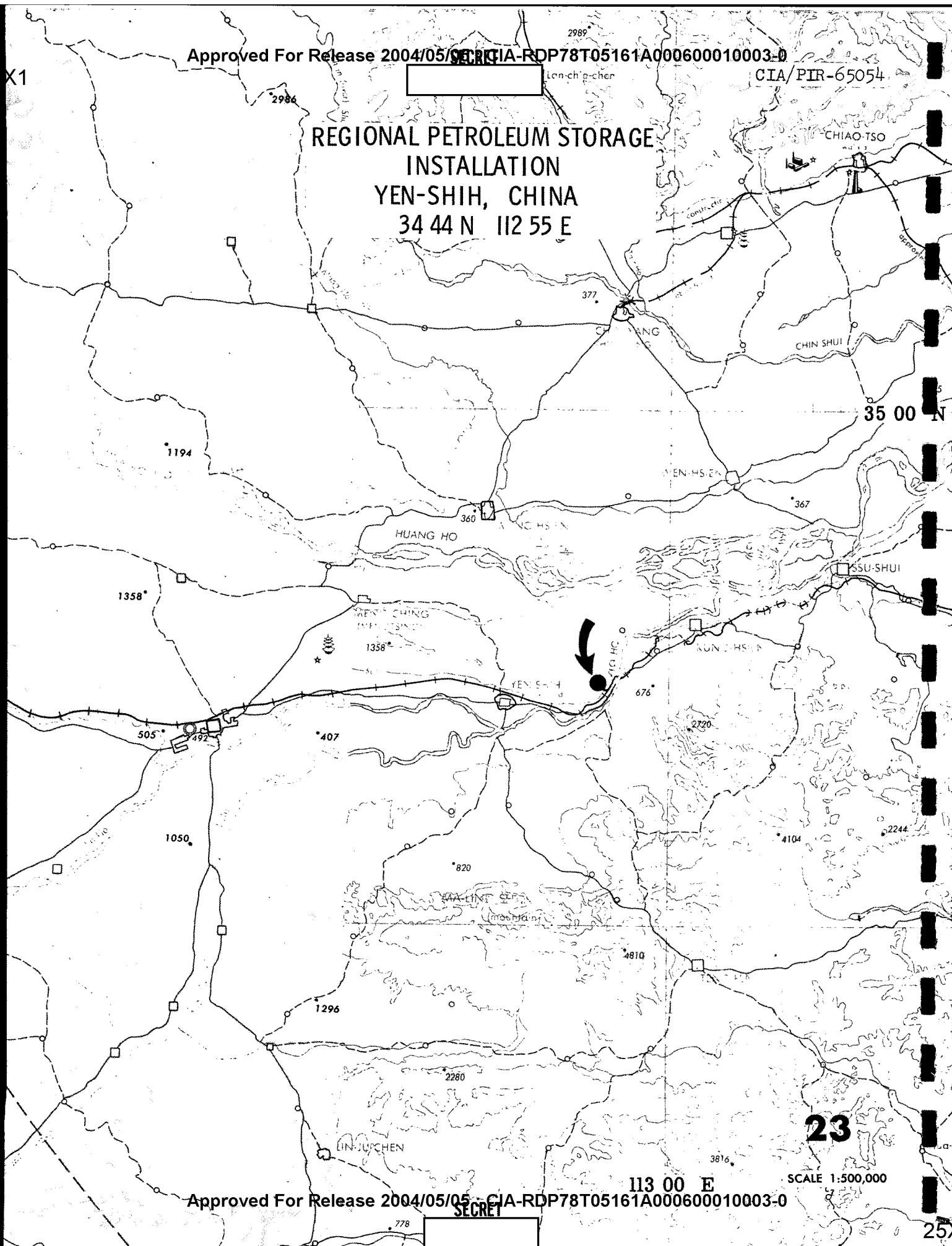
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CIA/PIN-65054

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CIA/PIR-65054

REGIONAL PETROLEUM STORAGE
INSTALLATION
YEN-SHIH, CHINA
34 44 N 112 55 E



SECRET

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25

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REGIONAL PETROLEUM STORAGE
INSTALLATION
YEN SHIH, CHINA
34 04 N - 112 55 E

SUPPORT AREA

RAILHEAD

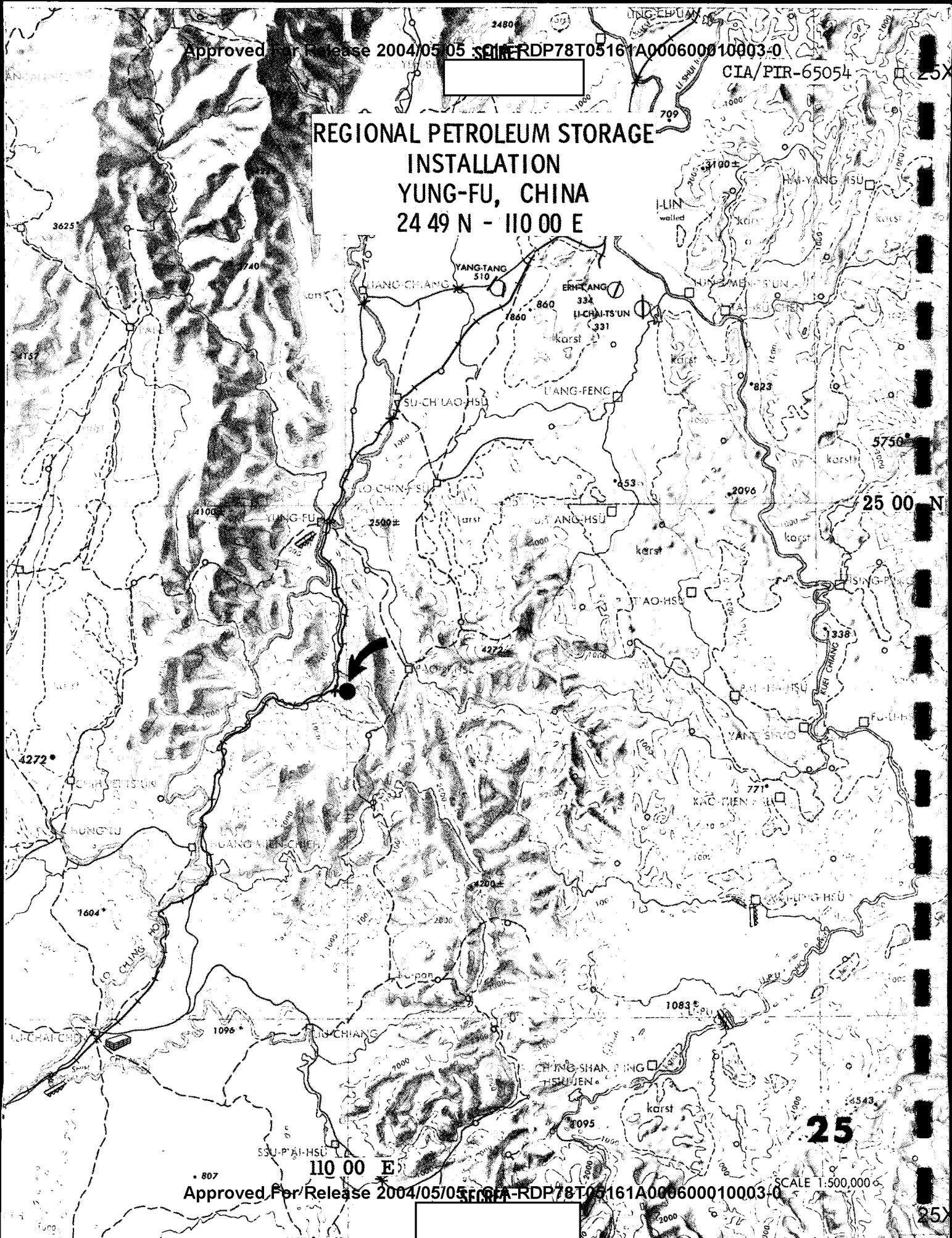
20 SEMI-BURIED TANKS

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REGIONAL PETROLEUM STORAGE
INSTALLATION
YUNG-FU, CHINA
24 49 N - 110 00 E



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REGIONAL PETROLEUM STORAGE

INSTALLATION
YUNG-FU, CHINA
24 49 N - 110 00 E

10 SEMI-BURIED TANKS

RAILHEAD

SUPPORT AREA

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